# Certificate of Analysis

Analysed essential oil : **Ylang Ylang Extra**

Analysis date : May, 16th 2017
Batch : 088NH701
Shelf life : September 2019

## ❖ General description

| | | | |
|---|---|---|---|
| Essential oil | Ylang Ylang Extra | Origin | Mayotte |
| Latin name | *Cananga odorata* | | |

## ❖ Organoleptic characteristics

| | |
|---|---|
| Appearance | Clear and mobile liquid |
| Colour | Pale yellow |
| Odour | Characteristic |

## ❖ Physico-chemical characteristics

| | Results (at 20°C) | Technical specifications | | | | |
|---|---|---|---|---|---|---|
| Specific gravity | 0,957 | 0.955 | < | d | < | 0.976 |
| Refractive index | 1.5048 | 1.4980 | < | IR | < | 1.5060 |
| Optical rotation | -33,10° | -40° | < | $[\alpha]^{20}_{D}$ | < | -20° |

## ❖ Volatile elucidation

GC : Perkin Elmer – Clarus 500
Column : Elite – WAX m, Ø 0.25 mm, 0.25 µm df
Injection : split
Detector : FID
Carrier gas : $H_2$

⇒ See Chromatogram : polar column

Date : 2017-05-16

| | | | |
|---|---|---|---|
| Software Version | : 6.3.2.0646 | Date | : 5/16/2017 12:21:41 PM |
| Sample Name | : HE Ylang Extra 088NH701 | Data Acquisition Time | : 5/16/2017 8:13:58 AM |
| Instrument Name | : CLARUS 500 | Channel | : B |
| Rack/Vial | : 0/10 | Operator | : Clemence |
| Sample Amount | : 1.000000 | Dilution Factor | : 1.000000 |
| Cycle | : 10 | | |

Result File :
Sequence File : C:\Sequences\CPG\2017\170515.seq

# Rapport d'analyse

colonne polaire Elite WAX

| pic # | Nom composant | TR [min] | Aire [%] |
|---|---|---|---|
| 1 | pinene<beta> | 4.48 | 0.08 |
| 2 | | 4.86 | 0.04 |
| 3 | myrcene | 5.88 | 0.05 |
| 4 | limonene+buten-3-ol<3-methyl-3 | 6.65 | 0.68 |
| 5 | cineole<1.8> | 6.87 | 0.15 |
| 6 | prenyl acetate | 8.37 | 1.50 |
| 7 | hexyl acetate | 9.04 | 0.20 |
| 8 | | 10.48 | 0.14 |
| 9 | | 11.04 | 0.05 |
| 10 | | 13.09 | 0.05 |
| 11 | cresol methyl ether<p>+? | 14.46 | 7.45 |
| 12 | cubebene<alpha> | 15.43 | 0.12 |
| 13 | | 15.92 | 0.10 |
| 14 | | 16.22 | 0.07 |
| 15 | copaene<alpha> | 16.52 | 0.82 |
| 16 | | 16.71 | 0.04 |
| 17 | | 18.27 | 0.22 |
| 18 | linalool | 19.03 | 7.10 |
| 19 | | 19.41 | 0.16 |
| 20 | elemene<beta> | 20.00 | 0.21 |
| 21 | caryophyllene<E> | 20.18 | 4.86 |
| 22 | | 20.49 | 0.06 |
| 23 | menthyl benzoate+? | 20.93 | 4.37 |
| 24 | | 21.45 | 0.07 |
| 25 | | 21.74 | 0.05 |
| 26 | humulene<alpha> | 22.66 | 1.76 |
| 27 | | 22.78 | 0.11 |
| 28 | muurolene<gamma> | 23.57 | 0.98 |
| 29 | germacrene D | 24.17 | 16.21 |
| 30 | | 24.48 | 0.50 |
| 31 | muurolene<alpha>+benzyl acetat | 24.93 | 14.19 |
| 32 | cadinene<gamma> | 25.90 | 0.60 |
| 33 | cadinene<delta> | 26.00 | 1.77 |
| 34 | farnesene<E,E-alpha> | 26.25 | 9.51 |
| 35 | geranyl acetate | 26.37 | 3.00 |
| 36 | | 26.68 | 0.09 |
| 37 | | 27.05 | 0.13 |
| 38 | | 27.82 | 0.15 |
| 39 | | 28.01 | 0.08 |
| 40 | | 28.10 | 0.31 |
| 41 | calamenene<trans> | 28.35 | 0.12 |
| 42 | geraniol | 29.36 | 0.23 |
| 43 | | 29.74 | 0.22 |
| 44 | | 30.29 | 0.08 |
| 45 | | 31.95 | 0.10 |
| 46 | | 32.32 | 0.05 |
| 47 | caryophyllene oxide | 32.69 | 0.15 |
| 48 | | 33.53 | 0.08 |
| 49 | | 34.42 | 0.07 |
| 50 | | 35.16 | 0.19 |
| 51 | | 35.33 | 0.22 |
| 52 | prenyl benzoate | 35.68 | 1.11 |
| 53 | | 36.00 | 0.12 |
| 54 | | 36.24 | 0.15 |
| 55 | | 36.40 | 0.07 |
| 56 | | 36.68 | 0.11 |
| 57 | | 36.92 | 0.14 |

5/16/2017 12:21:41 PM Result:

| pic # | Nom composant | TR [min] | Aire [%] |
|---|---|---|---|
| 58 | | 37.44 | 0.10 |
| 59 | cinnamyl acetate<E> | 38.27 | 4.20 |
| 60 | cadinol<epi-alpha> | 38.94 | 0.36 |
| 61 | muurolol<epi-alpha> | 39.40 | 0.55 |
| 62 | | 39.66 | 0.11 |
| 63 | | 39.79 | 0.18 |
| 64 | farnesyl acetate <2E,6E> | 40.64 | 1.05 |
| 65 | | 41.93 | 0.05 |
| 66 | | 42.14 | 1.98 |
| 67 | | 42.32 | 0.07 |
| 68 | | 42.81 | 0.08 |
| 69 | | 43.14 | 0.09 |
| 70 | | 43.70 | 0.41 |
| 71 | | 44.00 | 0.05 |
| 72 | farnesol <(2E,6E)> | 44.66 | 1.16 |
| 73 | | 45.53 | 0.03 |
| 74 | | 45.93 | 0.07 |
| 75 | | 50.03 | 0.03 |
| 76 | benzyl benzoate | 50.73 | 5.12 |
| 77 | | 53.22 | 0.03 |
| 78 | benzyl salycilate | 54.40 | 2.79 |
| 79 | | 55.17 | 0.06 |
| 80 | | 56.32 | 0.03 |
| 81 | | 57.54 | 0.03 |
| 82 | | 61.83 | 0.03 |
| 83 | | 62.82 | 0.07 |
| | | | 100.00 |

# Chromatogram

Sample Name : HE Ylang Extra 088NH701 Sample #: 088NH701 Page 1 of 1
FileName : C:\Data\Colonne Apolaire\Huiles Essentielles\Ylang\Ylang Extra\2017\ylang extra 170515.raw
Date : 5/16/2017 12:21:42 PM
Method : ylang extra.mth Time of Injection: 5/16/2017 8:13:58 AM
Start Time : 0.00 min End Time : 82.00 min Low Point : -47.13 mV High Point : 993.88 mV
Plot Offset: -47.13 mV Plot Scale: 1041.0 mV